## REMARKS

Claims 1-5, 9, 10, 12-19, 21-32, 35, 37, 38, 40, and 41 are pending. The Office Action rejects Claims 1-5, 9, 12-13, 17, 27-31, 35, 37, and 41 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pat. App. Pub. No. 2004/0201740 to Nakamura et al. ("Nakamura") in view of U.S. Pat. No. 6,075,755 to Zarchan ("Zarchan"), further in view of U.S. Pat. App. Pub. No. 2003/0060979 to Andrews et al. ("Andrews") and further in view of U.S. Pat. No. 6,741,996 to Brechner et al. ("Brechner"). Claims 10 and 15-16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakamura in view of Zarchan in view of Andrews in view of Brechner and further in view of U.S. Pat. No. 6,484,156 to Gupta et al. ("Gupta"). Claim 14 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakamura in view of Zarchan in view of Andrews in view of Brechner and further in view of U.S. Pat. App. Pub. No. 2001/0049691 to Asazu ("Asazu"). Claims 18, 23, 32, and 38 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Andrews in view of U.S. Pat. No. 4,882,765 to Maxwell et al. ("Maxwell"), further in view of U.S. Pat. App. Pub. No. 2004/0034655 to Tecu et al. ("Tecu"), and further in view of Brechner. Claims 19, 21-22, 24, and 26 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Andrews in view of Maxwell, further in view of Tecu, and further in view of Brechner and further in view of U.S. Pat. No. 6,192,056 to Tsuruoka ("Tsuruoka"). Claim 25 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Andrews in view of Maxwell, further in view of Tecu, and further in view of Brechner in view of Tsuruoka and further in view of U.S. Pat. App. Pub. No. 2002/0031240 to Levy et al. ("Levy"). Claim 40 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakamura in view of Zarchan in view of Andrews in view of Brechner and further in view of U.S. Pat. No. 5,805,773 to Komentani et al. ("Komentani").

Applicants have amended several claims as set forth in the above listing of amended claims. These amendments are fully supported by the originally filed specification. New Claims 42-55 have been added and are fully supported by the originally filed specification. Accordingly, no new matter has been added. In light of the subsequent remarks, Applicants respectfully submit that the claims are in condition for allowance.

The Rejection of Independent Claims 1 and 35 under §103(a) is Overcome

The Office Action asserts that Claims 1 and 35 are unpatentable over the combination of Nakamura, Zarchan, Andrews, and Brechner. Independent Claim 1 is directed to a method comprising obtaining user provided information in consequence to any user operation on a mobile terminal device. The method further comprises obtaining context information associated with said user provided information. The context information is related to at least one current condition of the mobile terminal device at the time of said any user operation and includes calendar information from an electronic calendar implemented at said mobile terminal device. The method additionally comprises obtaining a first time information in accordance with said user provided information. The method also comprises obtaining one or more calendar entries included in said calendar information. Each calendar entry comprises a second time information with a start time and an end time. The method further comprises comparing said first time information with each of said second time information to identify matching calendar entries by assigning a membership function to each of said second time information and deriving a membership grade value from each of said membership functions in accordance with said first period of time. Each membership function comprises a function in time, which rises from zero value at a predetermined moment in time before said start time of a respective calendar entry and becomes zero value at a predefined moment in time after said end time of said respective calendar entry. The membership function defines an extended timeframe for each calendar entry. The method also comprises obtaining meta-information from each matching calendar entry of said one or more obtained calendar entries. The method additionally comprises assigning meta-information obtained from said context information and said membership grade value to said user provided information. The membership grade value defines a measure which allows estimation of a reliability of a timely relatedness for retrieval. The method further comprises directing storage of said user provided information and said meta-information in a history storage in order to establish an information history functionality. Claim 35 includes substantially similar recitations insofar as this discussion is concerned, and is directed to an apparatus.

Claims 1 and 35 accordingly each recite the features of assigning a membership function to each of said second time information and deriving a membership grade value from each of said membership functions in accordance with said first period of time. Each membership

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function is recited to comprise a function in time, which rises from zero value at a predetermined moment in time before said start time of a respective calendar entry and becomes zero value at a predefined moment in time after said end time of said respective calendar entry. In this regard, the membership function is recited in Claims 1 and 35 to define an extended timeframe for each calendar entry.

The membership function is provided in order to identify the matching calendar entries. As recited in Claims 1 and 35, the membership function rises from zero value at a predetermined moment in time before a start time of each calendar entry and the membership function becomes zero value at a predefined moment in time after said end time of each calendar entry. This means that the second time information associated with the calendar entries is provided with a pre- and post-period of time, whereas the first time information associated with the user provided information remains unmodified. The membership function defines an extended timeframe for each calendar entry. See published application paragraphs [0175]-[0176]. Accordingly, the membership function comprises a function of time. A plot diagram of an example membership function is illustrated in FIG. 3b.

The first time information [associated with the user provided information] is compared with each of the second time information [associated with the respective calendar entry] in that the aforementioned membership function is assigned to each of the second time information and a membership grade value is derived from each of the membership functions in accordance with the first period of time. See published application paragraphs [0180]; [0185] and [0191]. Thereby a membership grade value is obtained, which provides a reliable and analytic measure of the time/temporal relatedness between the first time information (of the user provided information) in relationship to the second time information (of the respective calendar entry). See published application paragraphs [0187] and [0197].

This means it is not only determined whether the time information associated with the user provided information falls within the second time information associated with one of the calendar entries but also whether the time information associated with the user provided information is close in time to some extent to the second time information associated with one of

the calendar entries and a reliability value, e.g., the membership grade value, is provided which reflect a measure of the closeness in time.

The Office Action alleges that paragraph 34 of Nakamura teaches deriving a membership grade value from each of said membership functions in accordance with said first period of time. Paragraph 34 of Nakamura merely discloses that where two events on a calendar are scheduled for the same date and time but pertain to different locations, location meta data is compared to the location information in the calendar entries to determine a storage location for the image. This portion clearly does not teach or suggest deriving a membership grade value.

Moreover, Applicants note that the feature recited in Claims 1 and 35 is deriving a membership grade value from each of said membership functions, each membership function comprising a function in time, which rises from zero value at a predetermined moment in time before said start time of a respective calendar entry and becomes zero value at a predefined moment in time after said end time of said respective calendar entry. As submitted in the previous response, Nakamura does not teach or suggest any membership function comprising a function in time, let alone one that rises from zero value at a predetermined moment in time before said start time of a respective calendar entry and becomes zero value at a predefined moment in time after said end time of said respective calendar entry. Accordingly, Nakamura cannot disclose deriving a membership grade value from a membership function, as recited by Claims 1 and 35. Moreover, none of the other cited references, taken alone or in combination, cure the deficiencies of Nakamura.

The Office Action alleges the newly cited Zarchan teaches assigning a membership function to each of said second time information, wherein said membership function is a function in time, which rises from zero value at a predetermined moment in time before said start time of a respective calendar entry, and becomes zero value at a predefined moment in time after said end time of said respective calendar entry. In particular, the Office Action cites to Column 10, Lines 50-60. However, as submitted by the Office Action, at most Zarchan discloses:

> The appointment message scrolls across the watch screen after the medicine regimen is displayed. The appointment reminders are displayed a number of days before the appointment and on the day of the appointment. They are canceled after the day of the appointment.

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It is readily apparent to anyone having ordinary skill in the art that Zarchan is not even remotely related to the claim feature at issue. Scrolling an appointment message from a period before an appointment until after the appointment does not teach or suggest assigning a membership function to each calendar entry, let alone assigning a membership function in time that rises from zero value at a predetermined moment in time before said start time of a respective calendar entry, and becomes zero value at a predefined moment in time after said end time of said respective calendar entry.

In this regard, the Office continues to cite references that are not even remotely in the ballpark of the feature recited in Claims 1 and 35. If the Examiner is having problems understanding the mathematical principle of a function in time, Applicants again refer the Examiner to the example illustrated in Fig. 3b of the application. Clearly, however, Zarchan fails to cure the failure of the combination of Nakamura, Andrews, and Brechner to teach or suggest assigning a membership function to a calendar entry, let alone a membership function that is a function in time rising from zero value at a predetermined moment in time before said start time of a respective calendar entry, and becoming zero value at a predefined moment in time after said end time of said respective calendar entry. Moreover, none of the other cited references, taken alone or in combination, cure the deficiencies of Nakamura, Zarchan, Andrews, and Brechner.

As none of the cited references, taken alone or in combination, disclose each feature of Claims 1 and 35, Applicants respectfully submit that Claims 1 and 35 are patentably distinct from the cited references, taken alone or in combination, such that the rejection is overcome. Applicants further respectfully submit that Claims 1 and 35 are in condition for allowance.

The Rejection of Independent Claims 18 and 38 under §103(a) is Overcome

The Office Action asserts that Claims 18 and 38 are unpatentable over the combination of Andrews, Maxwell, Tecu, and Brechner. Independent Claim 18 is directed to a method comprising obtaining user provided information in consequence to any user operation on a mobile terminal device. The user provided information includes user provided audio information. The method further comprises obtaining context information associated with the

user provided information. The context information is related to at least one current condition of the mobile terminal device at the time of the any user operation. The method also comprises providing a code basis representing a plurality of coding symbols. The code basis comprises a pre-defined number of pre-defined frequencies. A plurality of coding symbols represents a character and symbol code table employable for coding the meta-information. The code basis is defined within a first frequency range, which is one frequency range of a plurality of frequency ranges forming a total frequency range being applicable to said user provided audio information. The method additionally comprises repeating said code basis within at least one further frequency range out of said plurality of frequency ranges. The method further comprises coding said meta-information in accordance with said code basis defined within said first frequency range and repeated within said at least one further frequency range to obtain redundancy. The method also comprises combining said user provided audio information and said coded meta-information by embedding said coded meta-information into said user provided audio information. The method additionally comprises directing storage of said user provided information with said coded meta-information in a history storage in order to establish an information history functionality. The meta-information is employable for retrieval of said user provided information by matching request information of a retrieval request with said meta-information for selecting a user provided information assigned to said meta-information matching to said request information. Claim 38 is directed to an apparatus and includes substantially similar recitations insofar as this discussion is concerned.

Accordingly, Claims 18 and 38 both recite the feature of providing code basis representing a plurality of coding symbols, <u>said code basis comprising a pre-defined number of pre-defined frequencies</u>. The Office Action alleges that column 3, lines 53-57 of Maxwell teaches this feature. However, the cited portion of Maxwell merely recites that a base station, mobile station, and repeater station all receive and transmit on the same frequency. Each message is provided with a coding indicating the number of times the message has been repeated. Accordingly, at most Maxwell discloses inserting a code in a message indicating a number of times the message has been repeated. Maxwell clearly does not teach or suggest providing a code basis comprising a pre-defined number of pre-defined frequencies.

Claims 18 and 38 further recite wherein said code basis is defined within a first frequency range, which is one frequency range of a plurality of frequency ranges forming a total frequency range being applicable to said user provided audio information. The Office Action alleges that column 4, lines 41-48 of Maxwell teaches this feature. However, at most this portion of Maxwell discloses that the system may operate using two separate frequencies such that the base station transmits on a first frequency and receives on a second frequency. Clearly, this does not teach or suggest the code basis being defined within a first frequency range that is one of a plurality of frequency ranges forming a total frequency range being applicable to said user provided audio information.

Claims 18 and 38 additionally recite repeating the code basis within at least one further frequency range out of said plurality of frequency ranges. The Office Action alleges that column 1, lines 27-42 of Maxwell teaches this feature. However, at most this portion of Maxwell discloses a relay station receiving a message on a first frequency and retransmitting the message on a second frequency. Accordingly, Maxwell does not teach or suggest repeating a code basis within at least one further frequency range out of a plurality of frequency ranges forming a total frequency range being applicable to said user provided audio information, as recited by Claims 18 and 38.

Moreover, none of the other references, taken alone or in combination cure the deficiencies of Maxwell. Applicants therefore respectfully submit that Claims 18 and 38 are patentably distinct from the cited references, taken alone or in combination, such that the rejection is overcome. Applicants further respectfully submit that Claims 18 and 38 are in condition for allowance.

The Rejection of the Dependent Claims is Overcome

Because each of the dependent claims includes each of the recitations of a respective independent base claim, Applicants further submit that the dependent claims are patentably distinguishable from the cited references, taken alone or in combination, for at least those reasons discussed above. Accordingly, applicants respectfully submit that the rejections of the dependent claims are overcome and the dependent claims are in condition for allowance.

In addition to the foregoing reasons, Applicants respectfully submit that Claim 40 is further patentably distinct from the cited references, taken alone or in combination. Claim 40 recites that deriving the membership grade value further comprises at least one of averaging said membership function over said first period of time, determining a maximum of said membership function over said first period of time, and determining a minimum of said membership function over said first period of time. The Office Action relies on Figure 7 and Column 5, Lines 56-62 of Kometani as teaching this feature. However, this portion of Kometani merely teaches that "the membership functions...are respectively weighted by the condition part membership grades 0.4, 0.9, and 0.3 into the curves of the fuzz-rule membership grades...." Thus, at most, Kometani teaches weighting a function. However, weighting a function does not teach or suggest any of averaging said membership function over said first period of time, determining a maximum of said membership function over said first period of time, and determining a minimum of said membership function over said first period of time, as recited by Claim 40. Moreover, none of the other cited references, taken alone or in combination with Kometani cures the deficiencies of Kometani.
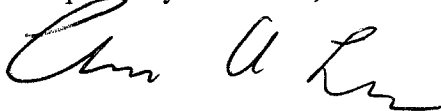
## CONCLUSION

In view of the amended claims and remarks presented above, it is respectfully submitted that all of the present claims of the present application are in condition for immediate allowance. It is therefore respectfully requested that a Notice of Allowance be issued. The Examiner is encouraged to contact Applicants' undersigned attorney to resolve any remaining issues in order to expedite examination of the present application.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,

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**ELECTRONICALLY FILED USING THE EFS-WEB ELECTRONIC FILING SYSTEM OF THE UNITED STATES PATENT & TRADEMARK OFFICE ON April 13, 2010.**